DOCUMENT RESUME

ED 152 248 IR 005 639

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TITLE Three Conundrums: Several Uncomfortable and Perennial Issues in Instructional Technology.
INSTITUTION Academy for Educational Development, Inc., Washington, D.C. Information Center on Instructional Technology.
PUB DATE Jan 76
NOTE 12p.
JOURNAL CIT Instructional Technology Report; n13 Jan 1976

EDRS PRICE MF-$0.83 HC-$1.67 Plus Postage.
DESCRIPTORS *Adult Education; *Communication Problems; *Credibility; Educational Development; Educational Radio; *Educational Technology; *Educational Television; *Evaluation Methods; Folk Culture; Higher Education; Instructional Technology; Mass Media; Part Time Students
IDENTIFIERS University of Mid America ME

ABSTRACT

The conundrums discussed are: (1) Can media be used for instruction when people feel that its purpose is purely entertainment? (2) How much credibility can there be in messages originating from mistrusted sources? and (3) Is comprehension related to the sophistication of technology used in instructional presentations? Also in this issue: Brajesh Bhatia discusses the evaluation of mass communications in terms of questions to be answered and designs to be used; Ronald Cross describes the University of Mid-America as an example of higher education reaching part time adult learners through educational technology; Selma Dublin reports on a successful use of folk media and radio in Malaysia. (Author/STS)

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THREE CONUNDRUMS: SEVERAL UNCOMFORTABLE AND PERENNIAL ISSUES IN INSTRUCTIONAL TECHNOLOGY

by

David Giltrow

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Instructional Technology Report. January 1976

IR005639

INSTRUCTIONAL TECHNOLOGY REPORT

A publication of the
INFORMATION CENTER ON INSTRUCTIONAL TECHNOLOGY — No. 13
Academy for Educational Development • 1414 22nd Street, N.W. • Washington, D.C. 20037 • January 1979

THREE CONUNDRUMS: SEVERAL UNCOMFORTABLE AND PERENNIAL ISSUES IN INSTRUCTIONAL TECHNOLOGY

by David Giltrow

David Giltrow is Dean of Media Production at the Center for Instructional and Staff Development of the City Colleges of Chicago. He lived in Tanzania for five years producing and researching motion pictures.

A number of substantial barriers may hinder effective use of educational media without our being aware of those barriers. I want to briefly describe three problem areas which might be called conundrums — a word meaning puzzle or mystery. The difference between a conundrum and a problem is that conundrums do not have direct answers, if any at all. Indeed, we must be prepared to face issues which do not have answers when using instructional technology.

The first issue is: *Can the media be used for instruction when people feel the purpose of media is purely for entertainment?* The problems presented by this feeling have become international since cowboy movies, popular music and sports have developed strong followings world-wide. Insertion of instructional or even indirect educational programming can cause a negative response or simply be ignored. If people with considerable media exposure regard media solely as sources of entertainment, it is reasonable to conclude that for people who lead lives dominated by hard, physical work in areas where there are few breaks from routine, any kind of stimulation from outside the area would be seen as novel, a source of entertainment or escape.

This is a more fundamental issue than the perennial question of using entertainment sequences or a strong entertainment format for instructional materials. (Examples of this include using a story line to convey family planning concepts, the humorous situation of the lazy versus the energetic farmer, etc.). If people feel the message of all media is sheer entertainment rather than something to be internalized and used in daily life, no amount of manipulation of instructional materials with entertainment overtones will succeed.

I have stated the case as final, as if there were acknowledged acceptance of the entertainment versus education dilemma by all researchers. Acceptable solutions might be devised, especially if each country attempts to ascertain the prevailing attitudes among target audiences before a major commitment of personnel and money is spent on instructional technology.

A second conundrum has political overtones and thus is not the source of much open reflection or discussion in the developing nations. The conundrum is: *How much credibility can there be in messages originating from mistrusted sources?* It is a fact that many governments in the developing world are highly centralized and, while passively accepted by the people, may not necessarily be trusted or seen as acting in the best interests of the people.

Phrased in melodramatic terms, can the sincere and dedicated instructional technologist overcome the possible mistrust or even open hostility of the people toward the agency which pays him or her? Will even a simple poster have the desired impact if the audience automatically rejects any ideas put forward by the government and its representatives?

A great deal of research has been done in the industrialized nations on this classic problem of credibility. However, little can be said about particular cases without testing materials on specific audiences. Trust is built between presenter and audience over a long period of time with careful attention to mutual respect. Heavy-handed government pronouncements and actions can destroy the communication bonds which a hard working government officer has nurtured. No film, radio program or slide show can heal the damage done to an extention agent's credibility by capricious government policy.

Money spent on media might be wasted if the desired effect is not achieved. Research can provide a clue, but only major changes in many governments' methods can sustain the credibility necessary for using media effectively.

A third conundrum has potential for solid research but may still prove to be elusive: *Is people's comprehension of instructional materials related to the sophistication of the technology used for presenting those materials?* For example, a film may do a better job of conveying messages than a 35mm slide show — despite the greater technical complexity of film production, projection, etc.

Some instructional technologists assume that complexity of the delivery device is not related to comprehension.

This assumption is based upon research showing no difference in learning with film strips compared to 16mm films of the same subject matter. The conditions of the research, however, have always been with literate people with a school background. Taking that point of view are many instructional technologists working in the third world. They assume that simplicity of technology is appropriate for low visual literacy levels. However, visual literacy with still pictures appears to be a function of experience in using them. (*Note* that it is equally a mistake to equate visual literacy with alphabetic literacy, as some of history's greatest artists have not been alphabetic literates). What seems to be important in using simple or complex technology is the optimum amount of perceptual information for the individual viewer or listener. Thus a film might, in fact, be more comprehensible than a series of still pictures because motion provides more perceptual information than the non-temporal-based still picture. A function played by television is to keep the attention of a viewer. Radio may lose out from time to time because people are attending to visual stimuli in their environment more powerful than the audio information.

It is crucial to our work to understand how much and what kinds of learning are possible from the various media and to use them to their maximum effectiveness. This greater precision in using instructional technology may mean not relying on the "modest media" for more than can be achieved, yet not spending money unnecessarily on the expensive media.

Towards solutions? I have posed three different conundrums touching on attitudes, credibility and the relationship of various media and learning. These may or may not be solvable, but nevertheless require our attention as producers and users of instructional technology. It is not enough to pose these communication dilemmas and then walk away with a shrug of the shoulders. It is also insufficient to give pat answers based upon one's pet theories.

In posing these conundrums, I have given the implicit assumption that *all* people respond in the manner described. This can hardly be the case, but our primitive levels of research findings cause reckless extrapolation between diverse groups of people — regardless of consideration for education, age, economic status, linguistic patterns, cultural history, geographic location, etc. Despite the conundrums, developing country researchers will need to collect much more data in order to fill our knowledge gaps.

I would propose that these conundrums and the hundreds of others which inhibit the effective use of instructional technology for development be explored by a series of international meetings on research into what Andreas Fuglesang has called "applied communications."[1] Fuglesang's successful leadership of several small workshops for applied communications users and producers under auspices of the Dag Hammarskjold Foundation provided rare and isolated opportunities for fundamental issues to be discussed among professionals from many nations. Such working meetings can help clarify issues and produce agendas for fruitful discussion.

But the one-time gathering for research exploration would be inadequate. What is required is the initiation of a long term research program based on priorities and methodologies which have specific goals and directions, interspersed with a series of meetings which would include instructional technology researchers as well as users and producers. Methodologies and data collection techniques should be streamlined so that users and producers also can be data gatherers, or at least play an important role in their countries' participation in the research program. Involvement of people other than academics in such an ongoing process of research-sharing would be crucial in breaking down the emotional barriers to research which so strongly exist in many developing nations.

The results of such meetings based on active research would be a quantum leap in our knowledge of applied communications. Fuglesang and others have made strong contributions to solving fundamental communications problems in isolated settings. What is needed now is a methodic and systematic exploration throughout the world. While the specialized agencies of the United Nations might be the obvious choice for organizing such an effort, they do not have flexibility when it comes to research sponsorship. One solution would be for the United Nations University being established in Tokyo to provide partial sponsorship. To insure that the agenda is applied and not overly esoteric, a private, solution-oriented agency should also provide partial sponsorship. Funding from the UNDP would be appropriate since that agency is supporting developing communications teams in Asia, Africa and Latin America.

The sponsorship list could go on, but that is a detail to the main thrust of increasing our knowledge in a systematic, worldwide manner on what has become a major development bottleneck: our ability to communicate and instruct effectively and efficiently.

[1]Fuglesang, Andreas. *Applied communication in developing countries, ideas and observations.* Uppsala: Dag Hammarskjold Foundation, 1973.

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As the result of many responses for information about simple and inexpensive A-V techniques and materials, ITR is featuring a section on do-it-your-self A-V techniques and the production of inexpensive A-V materials. On the opposite page is the Cheap and Easy Section which shows how easy it is to photosketch.

Rosemary Nicholls and Lindy Layer, graduates of Indiana University's Instructional Systems Technology program, have recently formed U.P. A-V (an organization which promotes utilization of A-V equipment and production and presentation of inexpensive A-V materials). They are currently running work-shops and training seminars at nominal cost for education, business, and social organizations. If you are interested in their program, contact them at: Box 1221, Cocoa Beach, Florida 32931, U.S.A. or Telephone: 305-783-2951.

Cheap & Easy

This is the first in a series of articles that outlines inexpensive and easily produced audio-visual materials and techniques.

PHOTOSKETCHING

This is a simple method of converting continuous-tone photographs into line drawings — no art background necessary!

USES

Masters or paste-up copy for various types of reproduction: diazo, thermal, photo silkscreen, offset printing, or electronic stencils. This process eliminates halftone costs and adds artwork to publications.

MATERIALS

- black and white photograph
- waterproof ink
- 1 part iodine: 2 parts water (available at pharmacies)
- photographic fixer (hypo) (available at photo stores)
- two trays

PROCEDURE

1. Using ink and pen, sketch directly on surface of photograph. Detail can be added or eliminated — what you sketch is what you get! If photograph is commercially processed, request matte finish or wash prints in water and dry before sketching.

2. place in fixer until background is completely white

3. place photo in iodine solution until image has disappeared

4.

wash in running water for 5 minutes

5.

hang to dry

Photosketching is a "Cheap & Easy" way to liven up publications with illustrations.

For further information, contact U.P. A-V.

EVALUATION OF MASS COMMUNICATIONS

by
Brajesh Bhatia

This paper is a condensed version of the one presented by Brajesh Bhatia at the National Broadcasting Training Center, Kuala Lumpur, Malaysia during the New Trends in Educational Technology in Asia with Special Reference to Educational Mass Media Conference 20-24 October 1975. Mr. Bhatia is a Senior Programme Specialist at the Asia Mass Communication Research and Information Centre.

Most countries in Asia have realised the importance of education and have given it a top priority in their national development goals. The problem is not only to provide education to the masses, but also to make it more purposive, useful and functional.

Many countries is Asia are reorienting and restructing their educational systems and programmes to meet these needs. Educational technology is one way to try to accomplish these objectives. This approach can be viewed as a *means* as well as a *service* to effect and facilitate better and more productive learning systems. And it is an integral part of both formal and non-formal education.

One aspect of educational technology relates to the use of specific techniques such as ETV, radio, programmed learning and other audio-visual aids. In another aspect, educational technology is seen as the application of scientific and other organized knowledge to the practical problems of education.

Before these technologies are put to use for mass education they must be tested and answers to the following questions be sought:

Are the costs involved commensurate with the gains?

Do they require sophisticated expertise for operation and maintenance?

What are their social and economic side-effects?

Are the gains in quality and cost greater than those that might be achieved by alternative means?

At what points in the educational system (including non-formal education) might educational technology be most usefully and productively applied?

Answers to most of these questions and suitability of a particular technology can only be provided by carefully undertaken evaluative studies.

In the developing countries of Asia, where financial constraints are so severe, costs and productivity must be an overriding consideration before any educational technology is adopted on a massive scale. Any educational technology designed to meet the problems of education must be inexpensive to be acceptable and must be suitable to the local culture and conditions.

EVALUATION

Evaluation is systematically examining and weighing a phenomenon against some explicit or implicit yardstick. However, it must be kept in mind that evaluation can be flexible enough to cover judgments and measurements of many kinds.

Purpose of Evaluation

The purpose of evaluation is to measure the effects of a programme against its stated goals as a means of contributing to subsequent decision making about the programme and of improving future programming. Within that definition are four key features: "To measure the effects" refers to the *research methodology* that is used. "The effects" emphasizes the *outcomes* of the programme, rather than its efficiency, honesty, morale, or adherence to rules or standards. The comparison of effects with goals stresses the use of *criteria* for judging how well a programme is doing. The contribution to subsequent decision-making and the improvement of future programming denote the *social purpose* of evaluation.

It is one thing to evaluate the effects of a small, short-term, specific, well-defined programme, such as a "training film," but it is different and far more difficult a matter to evaluate the effects of a national programme, with its diversity of methods, actions and goals.

People decide to have a programme evaluated for many different reasons, from the eminently rational to the patently political. Ideally, an administrator is seeking answers to pressing questions about the programme: its continuation, its expansion, what changes. But there are occasions when he turns to evaluation for less legitimate reasons, such as: postponement, ducking responsibility, public relations, etc.

Non-experimental research designs for surveys

The six research designs (one-time descriptive study, one-time post test, pre-post tests from same sample, pre-post tests from same population but staggered samples, post test of two selected populations, and pre-post test of two self selected populations) are most commonly used in interview survey studies. They are easy and cheap to undertake. However, the basic problem in the case of all the non-experimental designs is that uncontrolled factors other than the intended treatment are mixed with the obtained results to an unknown degree. The result is usually a confounded mixture of several variables. The effects of communication alone are, therefore, almost impossible to know.

Laboratory experiments

Laboratory experiments on communication effects almost always satisfy the experimental design requirements for internal validity, though occasionally a before-and-after study with no control group is found in a published study. Because of the highly controllable situation found in laboratory experiments, adequate design is relatively easy to do accurately. Such execution problems as exist do overlap with unnatural environmental conditions. The threats to external validity arising from unnatural environmental conditions in which research takes place are becoming increasingly worrisome. The highly structured situation in which laboratory experimentation takes place is not typical of the natural message-reception situation, but rather an artificial and controlled situation

which leads to highly predictable responses. Another difficulty is that the subjects taking part in laboratory experiments are generally not typical of the larger population for which generalisations are desired. The Institute of Mass Communication at the University of the Philippines has been working on devising ways and means to eliminate certain difficulties or shortcomings in the laboratory experiments by way of organizing travelling laboratory experiments.

Controlled field experiments

The controlled field experiment, properly executed, combines the advantages of field surveys and laboratory experiments and minimizes most of their disadvantages. It consists of an experimental design executed under naturalistic environmental conditions. However, executional problems, including costs, can be much greater than in either field surveys or laboratory experiments. In a controlled field experiment the treatment group is presented with the *opportunity* for exposure as in the real world and not exposed forcibly as in the case of a laboratory experiment. Among the group receiving the opportunity for exposure, there will be some who will selectively expose themselves and some who will not. This group is compared with the control group from whom the opportunity for exposure is withheld.

The selection of a suitable design to evaluate the mass communication materials will, however, depend mainly upon availability of resources like manpower, time and finances. The design can be made very simple or very complicated depending upon the choice of measurement indices preferred.

A word of caution

People expect too much from evaluation and this unrealistic nature of the expectations from the contributions of evaluation often results in disillusionment. An evaluation study does not generally come up with final and unequivocal findings about the worth of a programme.

Furthermore, for decision makers, evaluation evidence of outcome is only one input out of many. They must consider a host of other factors, from public receptivity and participant reactions, to costs, availability of staff and facilities, and possible alternatives. Programme effectiveness, inevitably and justifiably, competes for influence on decisions with considerations of acceptability, feasibility, and ideology.[1]

It is within this context that evaluation should be viewed. What evaluation *can* do is provide data that will reduce uncertainties and clarify the gains and losses that may result in different decisions.

[1]Carol H. Weiss. Evaluation research: Methods of assessing program effectiveness. Englewood Cliffs, N.J., Prentice-Hall. 1972.

TECHNOLOGY FOR NONTRADITIONAL STUDY: A SOLUTION WHOSE PROBLEM HAS ARRIVED

by
Ronald Gross

Institutions of higher education in the U.S. are faced with a problem unlike that of their counterparts in the developing world: declining enrollments due to a contraction of the university age population. However, the solution to this problem — addressing the needs of other age groups through reaching part-time adult learners with educational technology — is similar to the "open university movement" underway in the developing countries. For this reason, we offer a condensed version of an article discussing a conference held recently in Washington on the theme of "designing diversity" in higher education. Instructional Technology Report thanks the Society for College and University Planning for permission to condense and print the article, which first appeared in Planning for Higher Education, Volume 4, No. 5 3/6, October 1975. The author is on the staff of the Academy for Educational Development.

"Open learning," "nontraditional study," "the extended campus," "external degrees," "the new adult student" — these are shorthand labels for the growing edge of higher education today.

Throughout the nation hundreds of colleges and universities are probing this frontier. And open learning, with its new constituency of adult learners, has emerged as a ray of hope in the gloom that surrounds higher education. The hope is simply that the United States' much beset colleges may find here a fresh, exciting mission, some innovative tools for better teaching, and new sources of desperately needed income.

The new "movement" contains a variety of programs, from small, private, courageous enterprises such as Campus-Free College, Boston, to the well-funded, burgeoning University of Mid-America. But within this diversity are some common characteristics:

- opportunities to learn without conforming to the conventional regimen of coming to a campus for regularly scheduled classes;
- access to education for bypassed but eager learners, especially those older than the traditional 18-22 year-olds;
- options so that students can have more choices in their pursuit of learning; and
- use of technological resources to create, disseminate, improve instruction.

Good News and Bad

Leaders in this field came to this conference to figure out where the movement stands and where it should be headed. The meeting was sponsored by the University of Mid-America and the Joint Council on Educational Telecommunications.

"Designing Diversity '75" brought together most of the leading figures in the field, including Sir Walter Perry, head of Britain's Open University; Samuel Baskin, president of the University Without Walls; Jack McBride and D.B. Varner, respectively executive vice-president and president of the University of Mid-America (UMA); Samuel Gould, chairman of the Council for the Progress of Nontraditional Study; William Harley, president of the National Association of Educational Broadcasters; John Valley, Director of the Office of New Degree Programs, Educational Testing Service (ETS); Morris Keeton, chairman of the Cooperative Assessment of Experiential Learning (CAEL); and international innovators like Max Rowe, prime mover in establishing Israel's Everyman's University.

Two themes stood out in the proceedings. First, the vigor with which this new impulse is expanding. Second, some of the problems that are currently impeding further progress.

First, the good news. . .

A New Mission

Nontraditional study is the new "growth sector" on many campuses: this theme was touted as the sign which points a way out of higher education's maze of problems. "The fact is that we're running out of kids to teach," bluntly announced Harold Hodgkinson, the new director of the National Institute of Education (NIE). "So we are turning to adults."

This trend was documented by Congressman James O'Hara, who pointed to the new student mix on the campuses: just about half of all college students are now above age 22, more than 10% are over 35. "These changes are leading directly and irresistibly", he said,. . . "to an educational system which is not based on our old assumptions. . which is prepared to meet the needs of the part-time student, the mid-career student, the worker in or out of the home, the retiree."

The conference was in the first instance a showcase of exciting projects exemplifying this movement. Technology is the basis of these and other successful experiments in "opening" higher education. The reasons are not hard to find.

- *Outreach* — Teaching people without making them come to the campus can only be done through some communications medium. "I see no way for us to ignore any longer the enormous possibilities which technology offers us," said UMA's President Varner. "We shall be able, through television, audio tapes, video discs, the computer terminal, the newspaper, the textbook, and the study guide, to make higher education available to the people of this country — all the people — on their own terms."

- *The Cost of Quality* — If remote learning is to be alive and well, courseware must be of high quality. To defray the high production costs of quality programs, a sufficiently large audience must be reached (i.e. Ascent of Man, British Open University courses, and Sesame Street). Audiences of such size can be reached only through media.

What this adds up to is a telling answer to the familiar saying that instructional technology is a solution in search of a problem. If that be so, clearly the search stops here since large-scale off-campus systems must necessarily be technology-based. With nonresidential instruction a new game that cannot be played the old way, instructional technology ceases to be an option to be used at the pleasure of the teaching fraternity. It becomes a must.

Virginia Trotter from the Department of Health, Education and Welfare (HEW) underscored this point forcefully: "Employment of technology in education can no longer be thought of in terms of the future. We must think in terms of now. First-rate instructional resources must be made available through technology to every learner. . . Technology means access, convenience, choice. It often means offering an education experience to the learner that would otherwise be unavailable. . . As Assistant Secretary for Education, I should like to move now — nationally — through whatever influence my office can exert — to establish educational technology as a dependable resource to be used widely and regularly — to effect significant and revolutionary improvement in our existing education systems."

The University of Mid-America

The biggest player in the game so far is the University of Mid-America, which is designed to exploit the potential of technology for open learning. UMA, building on what has been learned from several decades of experience with instructional technology, brings together a variety of media and organizational options to provide alternatives for a broad constituency.

It is beamed primarily at adults who either have not had access to, or are reluctant to take advantage of, existing postsecondary educational opportunities. It is committed to developing noncredit offerings for specialized constituencies, as well as courses for credit leading to degrees.

UMA began as the SUN project out of the State University of Nebraska. Now it is a consortium of five state universities. Each state will use its existing delivery system, with technical advice and assistance from UMA. The states take responsibility for course delivery as well as for accreditation of the courses through their existing colleges and universities. UMA's distinctive role is to develop courses, and to conduct basic research and evaluation for the entire enterprise.

As the glamour stock on the open learning/technology market, SUN-UMA has received massive backing from public and private sources: among them, a $1.8 million grant to SUN from HEW, and NIE grants to UMA totaling $3 million for its initial two years of development, with the intent of follow-up funding for the remaining three years, subject to evaluation and availability of funds. Now, UMA has just received a $700,000 grant from The Ford Foundation for the coming three years.

More than 1,000 Nebraskans have been involved thus far with the initial UMA courses; their average age is 40. The courses have included introductory accounting, psychology, computer science, and consumerism. All of them include printed instructional materials supplemented by lesson material published in a state-wide newspaper. Additional assistance to learners is provided through regional learning centers spread across the state (four, thus far), and a toll-free telephone line through which students can talk with instructors whenever they wish.

Open learning may be the thread that can lead higher education out of its present maze of troubles — but there are obstacles that will need to be overcome along the way. Drawing from several of the major speakers, one can assemble a formidable agenda of priority problems.

- *Quality.* Speaker after speaker warned that a basic challenge to nontraditional study is to maintain rigorous control of quality. Sam Baskin, president of the University Without Walls, warned that experimental programs will always have to demonstrate their adherence to standards that are stricter than those demanded of established institutions.

- *Curriculums.* There was an undercurrent of concern about too much emphasis on traditional curriculums in current open learning efforts. "I see too little concern with developing new structures that function more cooperatively and totally than our universities have," said Professor Stephen Klees of Cornell. ". . . too little attention paid to dealing with the everyday conditions that people face. More emphasis needs to be placed on collective discussions of the problems people perceive and on education designed to be responsive to their desires."

- *Access.* Despite the mandate to find and serve adult learners who have been bypassed by the existing system, the clientele for most open learning programs, according to Harold Hodgkinson, are still in fact those who already have the most — the most education, the most money, the most advantageous jobs. The new learners are overwhelmingly white, middle class, employed, and have precious college experience.

- *Resistance.* Despite the lure of "new clients," the academic establishment on the whole is still resistant. "The first flush of enthusiasm for making educational opportunity available for all who can benefit from it has faded to a more realistic appraisal of how academic change actually occurs," warned Samuel Gould. "Acceptance of new approaches to learning will be slow and will take place in an atmosphere of reluctance on the part of a good proportion of the academic community. At least two decades of hard and relentless work lie ahead. . . and always with the burden of proof squarely on the innovator."

- *Technology.* Technology itself came in for some criticism. Being hardware-fixed was frequently cited as a danger in the field. Sir Walter Perry received one of the conference's few outbursts of spontaneous applause when he said, "I believe that in the U.S. you have spent too much money on sophisticated hardware and not nearly enough on sophisticated software."

The charge of misuse of technology was also heard.

"It is disturbing," Klees argued, "to see systems concentrate on higher cost video technologies, often to the exclusion of lower cost audio and print, which for most uses seem to produce equivalent cognitive effects, and which cost significantly less. Often the emphasis is on fancy productions of the highest technical quality, following ad hoc rules of thumb like devoting 100 hours of preparation time to one hour of presentation time. This has resulted in costs of about $20,000 per television course hour for the British Open University, and probably comparable figures for some television-based courses in the SUN system, while much simpler TV productions could be done for one twentieth of that figure."

In support of this, Klees cited a just-published report of research by Wilbur Schramm, on the effects of various instructional television strategies. Schramm concluded with two guidelines: presentation should be simple, and students should actively participate in the learning process — findings which he noted "should gladden the heart of a budget officer."

In another but related vein, Klees observed: "I fear that the use of high fixed-cost technologies can dictate a scale of operation and a consequent rigidity that is inhumane and has difficulty responding to different local and individual needs."

- *Diversity.* Diversity has been a rallying cry for innovators promoting alternatives to the dominant pattern in higher education. So it was startling to see diversity itself come under fire. But John Valley noted that, scrutinized from a critical angle, diversity began to look too much like "unevenness in terms of geographic areas, people being served, opportunities available, fields of study, age, social groups, etc."

Brashness and hopefulness are refreshing qualities which might fairly be said to have characterized this conference — and the whole open learning movement. They are traditional American qualities hard to come by these days in higher education. Not many meetings of educators could have concluded with this serious and accurate assertion by Mr. Frederick Bolman; the official conference summarizer: "After what we have heard and discussed here, the opportunities before us seem tremendous."

Copies of the complete article by Ronald Gross are available from ICIT on a complimentary basis. Information about the University of Mid-America is available from Milan Wall, Director of Public Affairs, P.O. Box 82006, Lincoln, Nebraska 68501.

BROADCAST OF FOLK SONGS CARRIES THE DEVELOPMENT MESSAGE IN MALAYSIA

In November of last year, Selma Dublin, former Director of the Information Center, visited Malaysia, Singapore and Indonesia. While there she met with many people and saw numerous interesting projects and programs. In the process, she became acquainted with new people and new activities.

In the following article Ms. Dublin reports on a successful use of folk media and radio in Malaysia.

In my visit of November 12 to Kota Bharu, Kelantan, Malaysia I met with Mr. Mahady Ibrahim, RTM (Radio Television Malaysia) Program Supervisor who has been responsible for the development of rural broadcasting in his area. As a former agriculture officer, Mr. Mahady understands the needs of farmers for information to help them improve their production and raise their standard of living.

As a professional communicator he recognizes the need to deliver development messages in forms the rural population can understand and accept. He therefore uses three types of traditional folk media in his productions.

1. *Mak Yong* — Musical drama
   Through sketches using traditional characters taken from the Ramayana stories, development information is passed on in a form farmers and other rural people are used to hearing. Since the form of drama is so stylized, it can only be successfully performed by professional players.
2. *Wayang Kulit* — Shadow play
   This form of drama also takes professional players; the performers follow in a family tradition where the skill is handed down from father to son.
3. *Kikir Barat* — Folk song
   Since I had not seen this form of folk media documented I asked Mr. Mahady to elaborate on it at some length and want to share his discussion with you.

In the traditional performance there are three standard tunes which are known to all the village people. To these tunes the participants put their own words, making sure the first and third lines rhyme as well as the second and fourth lines. The lyrics are spontaneous creations of the two group leaders who, each with his own chorus of as many as 50 people, compete until one leader can think of nothing new to add nor of any way to counter the ideas of the other leader.

The radio broadcast follows the traditional format but is limited to 45 minutes. The leader of the first group known as *Juara* (Grand Champion), with his chorus of 10, sings for 10 minutes. Then the leader of the second group, *Tukany Karut*, counters in a faster speed with a different tune. The program director gives the leaders subjects he wants covered such as a message of praise for the government, a message from the villagers to the government, an elaboration of government programs, and/or agricultural information such as the importance of double cropping or the functions of the Farmer's Organization Association.

The program is broadcast on national radio at noon every Wednesday. Many letters have been received requesting that the program be expanded to at least two hours. (In the villages the Folk Song Contest often goes on from 9:00 PM to 5:00 AM).

From the success of the local program, a national competition has developed and is now in progress. Regional champions are being established in local radio competitions and the third annual National Competition will be broadcast live on both radio and TV in Kota Bharu during February 1976.

Mr. Mahady presented the Information Center with an hour long cassette tape recording of examples of each of the three folk media forms used by RTM for the use of staff and visitors to the Center.

POTPOURRI

Educación No-Formal by Benjamin Alvarez and Bernardo Toro of Colombia's Center for the Development of Non-formal Education (CEDEN) offers an excellent introduction for Spanish speakers to the literature on non-formal education. It also relates valuable original thinking on non-formal education and grew out of CEDEN's comprehensive survey of out-of-school educational activities in Colombia.

The authors begin by citing the factors which seem to have caused the rediscovery of out-of-school education by professional educators: 1. the inadequacy of formal education for addressing the diverse learning needs of third world societies; 2. the growing desire of third world educators to link learning directly to the world of work; 3. the increased emphasis on education's role in development; 4. the view of education as a life-long activity; and 5. the increasing influence of mass media in the lives of third world populations.

The authors lament the fact that these changes have been viewed primarily in terms of their divergence from the traditional schooling model of education. Instead of a unitary phenomenon called non-formal education, the authors see a multi-dimensional matrix which allows for a broad "menu" of educational alternatives to schooling. The dimensions of education which are proposed encompass many variables relating to: the context for learning, the content of learning, the control of the educational process, and the meshing of learning into the community.

The authors have provided an extremely useful annotated bibliography of the non-formal education literature, and an agenda of future action for conceptualizers, planners, implementers and evaluators of non-formal education. One only hopes that the book will be widely read and acted upon. It is available from *Educación Hoy*, Calle 78, No. 12-16, Apartado Aéreo 90036, Apartamento 102, Bogota, Colombia. The cost in Latin America is US$1.90 and in the U.S.A. is US$2.15.

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During a recent visit to ICIT, Dr. Charles Wedemeyer of the University of Wisconsin, a pioneer in correspondence study (also referred to as distance teaching and independent study), related to ICIT staff an experience common to many of his consulting missions.

Country X has decided to introduce "big technology" to extend the reach of education. The planners view their problem as simply one of quantity — too many people, too few schools, too few trained teachers, too few teaching materials. With "big technology" they believe they can solve the quantity problem by simply placing radio or television receivers in reach of all their citizens and broadcasting to them.

However, when educational planners see technology merely as a multiplier of existing educational practice, they often lose sight of the need for qualitative changes. In Dr. Wedemeyer's opinion, these changes are particularly important when educational technology is not supported by traditional classroom methods. The independent distant learner must be treated quite differently from the classroom learner.

Dr. Wedemeyer told of a session with planners in Country X, whose government viewed technology merely as a multiplier. Dr. Wedemeyer pointed out that independent distant learners require internal motivation and discipline, which supplants the external motivation and discipline of the classroom. There was evidence from many countries to the effect that independent study showed greater success when educational programming and materials served the independent learner's personal needs, and allowed the learner to take greater responsibility in determining his or her own learning goals.

At this point one of the more perceptive members of the group pointed out a contradiction. While he accepted these ideas on a theoretical level, he doubted that they could be tested in his country. Country X, he continued, is a very hierarchical society, in which people are not encouraged to think independently. A program which began to produce truly independent learners might prove unacceptable to the government.

By the end of the session, the contradiction — and its implications — were clear. What is gained by solving the quantity problem, and leaving the quality problem untouched? Perhaps, Dr. Wedemeyer mused, you merely multiply educational failure, and put off the final day of reckoning.

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On May 27th and 28th, 1976 the University of Wisconsin Extension Conference will host a "Telephone in Education" conference. Coordinators are University of Wisconsin — Extension, University of Illinois Cooperative Extension and Université of Québec — Télé-Université. The aim of the conference is to stimulate an ongoing discussion among interested parties on the national and international possibilities of teleconferencing. Presently, coordinators are calling for papers on the following topics: 1. remote interactive instruction; 2. technological developments in telephony for education; 3. theories and philosophies of interactive remote instruction; 4. interactive computing conferencing; 5. case studies of present teleconferencing systems; and 6. instructional design for teleconferencing.

Potential clientele for the conference are: 1. adult educators; 2. educational technologists; 3. educators, — instructional and administrators; 4. government, industry and business with communication problems; and 5. telecommunications professionals.

Those wishing to submit papers or receive more general information about this conference should contact: Dr. Lorne A. Parker, Old Radio Hall, 975 Observatory Drive, University of Wisconsin — Extension, Madison, Wisconsin 53706, U.S.A.

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The AID Studies in Educational Technology has recently published: *A Case Study of the ATS-6 Health, Education and Telecommunications Projects*. Authors of this study are Bert Cowlan, Consultant and Dennis Foote, Stanford University.

Cowlan and Foote survey the three areas (Alaska, Rocky Mountains and Appalachia) of the satellite experiment in terms of geography and demography and then briefly outline the various projects conducted. These are the Rocky Mountain Educational Project, the Appalachian Education Satellite and Region Veterans' Administration Hospital Projects, the Alaska Indian Health Service and Education Projects, and the Regional Medical School Program.

The most interesting section of the study is entitled Observations. Here the authors report their own observations on the various issues that "could be raised about the planning and operation of projects using satellite communication." Some of these issues are: public response, hardware, field support, management and software. These observations, it should be noted, were made "mid-way through the life of the demonstrations."

This study was commissioned by the Office of Education and Human Resources which is a section of AID's Bureau for Technical Assistance. Copies of the ATS-6 study are available on a complimentary basis from the Information Center.

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One of the most insightful quotes gathered by Selma Dublin on her recent trip was from Mr. Soemitro, Director, Center for Education, Innovation and Technology, Jl. Gatot Subroto Kav, 41-42, Jakarta, Indonesia.

"Unfortunately in practice, there is no such thing as orderly, progressive, pre-planned development. Different projects elicit different degrees of response. The real take-off point is impossible to predict — as an example, the rapid and unexpected take-off on the "Games" project in this country." The original "Games" project was part of the University of Massachusetts' program in Ecuador where popular games were developed to suit local conditions. Three types of materials evolved from this project: those which increased fluency with letters and numbers; those that dealt with group processes and real life situations; and those that elicited self-expression and dialogue. A series of nine technical notes on that project is available from: Center for International Education, School of Education, Hills House South, University of Massachusetts, Amherst, Massachusetts 01002, U.S.A.

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The next issue of *Instructional Technology Report* will be in a different format. You will see changes in type, spacing and the masthead. The newsletter will also have change of name. ITR's new name will be *ICIT Report*. We hope you will like our changes.

Instructional Technology Report is the official newsletter of the Information Center on Instructional Technology. The Center serves as an international clearinghouse for materials and information on important developments in the use of technology for improving education around the world. The Center is operated by the Academy for Educational Development, a private non-profit organization, and is supported by the Bureau for Technical Assistance of the U.S. Agency for International Development.

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